SCREENING/TESTING

The Statewide Screening/Testing Plan for Childhood Lead Poisoning Prevention recommends/requires:

All children in the Medicaid program are **required** by Medical Services Administration to be tested at 12 and 24 months of age; between 36 and 72 months if not tested previously. **There are no exceptions or waivers. MIChild-enrolled children should be tested if any risk factors exist (or at health care provider's discretion).**

All children within designated "high risk" ZIP code areas should have a blood lead test at 12 months and 24 months of age, or between 36 and 72 months if not tested previously.

Parents/guardians of children under age six (not in the previous 2 categories) should be asked questions concerning the child's potential sources of exposure. (See list below).

Health care providers always have the option of testing a client for lead if he/she determines the client to be at risk, **or if the client or parent/guardian requests a blood lead test.**

POSSIBLE SOURCES OF EXPOSURE

OCCUPATIONAL & HOBBY RELATED

Auto/boat repair
Auto parts/accessories manufacture
Radiator repair
Battery manufacture/repair
Bridge/tunnel/elevated highway repair
Plumber, pipe fitter (older buildings)
Wrecking and Demolition
Glass manufacturing,
Brass/copper/aluminum processing
Chemical manufacturing
Plastics manufacturing
Rubber products manufacturing
Steel welding and cutting
Renovate/remodel older homes
Furniture refinishing
Art/painting supplies
Jewelry and pottery making
Stained glass making
Lead soldering (e.g., electronics)
Lead shot, bullets, and fishing sinkers
Brass/copper/bronze/lead/iron foundries
Power washing of pre-1978 home/bldg.
Scrap metal handling
Paint manufacture (non-residential paint)
Machining/grinding/melting lead alloys
Bronze polishing
Leaded glass manufacturing
Burning lead-painted wood

OTHER

IMPORTED COSMETICS - Kohl, Surma
FOLK REMEDIES - Albayalde, Alkohl, Ayurvedoc, Azarcon (also called Alarcon, Coral, luiga, maria luisa and rueda), Greta, Ba Bow Sen, Bali Goli, Cebagin, Cordyceps, Ghasard, Hai ge fen, Kandu, Kushta, Mai ge fen, Pay-loo-ah, Poying tan, X-yoo-Fa
FOOD ADDITIVES - Lozeena

ENVIRONMENTAL

Lead dust from deteriorating paint
Ceramics/pottery
Lead-crystal
Lead-soldered cans (imported)
Burning lead-painted wood
Use of water from lead pipes
Living near lead-related industries
Soil/dust near industries/smelters and heavily traveled roadways
Miniblinds
Candles with lead wicks
Some imported painted toys

Michigan Department of Community Health
MDCH

TESTING TIPS

"TESTING" requires a **blood** specimen.

"**SCREENING"** (asking exposure-related questions) is appropriate **only** when a child is **NOT** in the **Medicaid** program and does **NOT** live in a **high-risk ZIP** code.

- There is **NO** requirement that the initial blood test for a child be a venous specimen. A capillary specimen is acceptable.
- If the capillary result is below the CDC "level of concern" (9mcg/dL or less), no other procedure is necessary until the next recommended testing time.
- If elevated (≥ 10) then confirmatory sample should be obtained. This need not be done in the primary care provider's office.
- If the capillary (or venous) specimen is collected in the provider's office and packaged for mailing, CLIA certification in the office is NOT required.
- Specimens may be sent through the U.S. Post Office.

DIAGNOSTIC TESTING

NO level of lead in the blood is "normal".
Diagnostic testing is required for capillary BLL's ≥ 10 *m*g/dL.

If the screening test is:	**obtain a venous test within:**
10-19 *m*g/dL	3 months
20-44 *m*g/dL	1 month – 1 week*
45-59 *m*g/dL	48 hours
60-69 *m*g/dL	24 hours
≥70 *m*g/dL	Immediately as an emergency test

***The higher the BLL, the more urgent the need for a diagnostic test.**

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PHYSICIAN **AND** ***HEALTH DEPARTMENT*** **FOLLOW-UP ACCORDING TO DIAGNOSTIC BLOOD LEAD LEVEL**

(mg/dL	ACTION
<10	Reassess and test again (if needed) in 1 year. Provide anticipatory guidance (at appropriate language and reading level) to eliminate exposure sources.
10-14	Confirm test results with a venous blood lead level (BLL). Provide lead poisoning prevention pamphlets and anticipatory guidance to prevent further exposure to lead. Venous BLL again in 3 months.
15-19	Confirm test results with a venous blood lead level (BLL). Refer to local PH for family nursing visits for lead assessment & education. (Time frame determined by local resources, suggested within 2 weeks). Provide or refer for follow-up venous BLL in 3 months. Refer for social services as needed. If BLL's persist (i.e., 2 venous BLL's in this range at least 3 months apart), proceed according to actions for BLLs 20-44.
20-44	Confirm test results with a venous blood lead level (BLL). Physician to provide thorough physical assessment and clinical management and refer to local PH for coordination of care as soon as possible. Refer other children under age 6 and pregnant women who live or spend time at this residence for blood lead tests. Local PH staffs provide nursing and environmental investigations in the home within 5 working days of the referral. (Recommend joint visit if possible). **EBL Environmental Investigation:** **NOTE:** EBL investigations require a trained and certified Inspector/Risk Assessor. Refer for lead hazard control as needed.
45-69	Confirm test results with a venous blood level (BLL). Clinical management includes chelation therapy. Refer ASAP to local PH for nursing and environmental investigation, to be done within 48 hours of the referral. **Lead hazard control should be completed before the child returns to residence.****
>70	Confirm test results with a venous blood lead level (BLL). Hospitalize child immediately and begin medical management, including chelation therapy. Refer immediately to local PH for nursing and environmental investigation (to be done within 24 hours of referral). **Lead hazard control should be completed before the child returns to residence.**

Continuing follow-up care is needed until the child has **two consecutive BLLs (at least three months apart) less than 10 mg/dL (MDCH).** At that time, the child may be discharged from care. Blood lead levels may remain high for extended periods of time, depending upon the length of time and severity of exposure. During this time, encourage family to continue the prescribed food plan.

THE CHILD (LESS THAN 6 YEARS OLD) WITH A VENOUS BLL > 20 SHOULD RECEIVE A THROUGH EVALUATION BY HIS/HER PRIMARY CARE PROVIDER.

CLINICAL EVALUATION COMPONENTS ARE:

1. MEDICAL HISTORY

- Symptoms?
- Developmental history – Include mouthing activities and pica
- Previous BLL measurements?
- Family history of lead poisoning?

2. ENVIRONMENTAL HISTORY

- **Age, condition,** and ongoing **remodeling** or **repairing** of primary residence and other places where the child spends time (including secondary homes and day-care centers). Determine whether the **child may be exposed** to lead-based paint hazards at any or all of these places.
- Occupational and hobby histories of adults with whom the child spends time. Determine whether the child is being exposed to lead from an adult's workplace or hobby.
- Other local sources of potential lead exposure. (See "Sources List" on front).

3. NUTRITIONAL HISTORY

- Evaluate the child's daily diet and nutritional status using 24-hour recall.
- Evaluate the child's iron status using appropriate laboratory tests.
- Ask about the need for food stamps and WIC participation.

4. PHYSICAL EXAMINATION

- Pay particular attention to the neurologic examination and to the child's psychosocial and language development. This should be re-evaluated on a regular basis. Refer to Early On*. (Automatic referral for "Toxic Exposure").

*MDCH Advisory Committee recommendations included.
**Screening Young Children for Lead Poisoning, CDC, Nov. 1997

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